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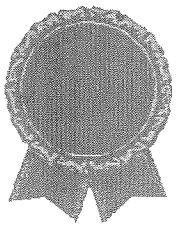
SMARA UPDATE

The Quarterly Newsletter of the Department of Conservation - Office of Mine Reclamation



Lead Agency Award Winners Announced

Fifteen California cities and eight California counties have earned recognition for their commitment to responsible mining practices that comply with the state's Surface Mining and Reclamation Act. The cities -- Azusa, Bakersfield, Corona, Irwindale, Lake Elsinore, Lake Forest, Marina, Needles, Palmdale, Paso Robles, Richmond, Rocklin, San Bernardino, Upland and Vista, and the counties -- Alpine, Calaveras, Del Norte, Fresno, Napa, Santa Clara, Santa Cruz and Tuolumne -- won the Department of Conservation's SMARA Lead Agency Award. Award presentations are currently underway in the winning jurisdictions.

Initiated as a means of fostering state/local government partnerships, the program is in its third year. Selection criteria was based on the lead agency having a permanent certified SMARA ordinance, and 90 percent of the jurisdiction's mines having approved reclamation plans and financial assurances. Allowances were made for jurisdictions with fewer than 10 mines; they could qualify if no more than one mine was out of compliance with these requirements. Next year's criteria will retain these qualifiers, but will add the requirement that mine inspections be completed for all mines within the lead agency's jurisdiction.

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1997 Flood Update

While winter storms wreaked havoc to lives and property throughout the state, and inundated at least four mines in the Central Valley, flooding resulted in an increased need for sand and gravel to repair levees and roads.

To address this urgent need, Public Contracts Code requirements that public agencies purchase aggregate materials only from sources that are in compliance with SMARA (the "AB 3098 Eligible List") were waived during the flood emergency by executive order signed by Governor Wilson. Concerned about the potential need to waive SMARA requirements, OMR staff surveyed declared-disaster area counties about whether or not there was a need to temporarily suspend reclamation plan and financial assurance requirements to have access to mineral materials needed for emergency repairs.

Due to distance from existing permitted operations, only three Northern California counties felt some pressure in addressing emergency aggregate needs. Plumas County resolved its problem by facilitating an expedited permit review process in cooperation with OMR. Alpine County also used an expedited process for mine approval. Other counties chose to invoke the emergency clause contained in their SMARA ordinances, which authorized extended hours of production during emergencies. (NOTE: Not all lead agencies have incorporated such an emergency clause within their SMARA ordinances.) Consequently, SMARA requirements were not waived.

Status On "Flood Control" Regulation

At its January 16, 1997 regular business meeting, the State Mining and Geology Board formally adopted a regulation amending Title 14, Division 2, section 3505 of the California Code of Regulations. This regulation implements, clarifies and makes specific the provisions of Public Resources Code §2714(a) and (b) as it applies to *on-site construction* and *restoring land following a flood or natural disaster* as they relate to "flood control facilities."

CCR §3505(a)(2) has been added. The first part of this new subdivision is a statement of intent, and defines the term "flood control facility." The second part specifies the criteria that must be considered in determining if a particular flood control facility is exempt from the requirements of SMARA. Specifically, the facility in question must have been designed and constructed to an approved engineering plan, managed by a responsible public agency, and clean-out activities may not leave the facility in a state that exceeds the design specifications in existence immediately preceding the maintenance operations.

In preparing this regulation, the board relied on information from the attorney general's opinion, public comments received during several of the board's committee and regular business meetings, inquiries received by the Office of Mine Reclamation from surface mine operators, and comments from the County Supervisors Association of California and various water district authorities, lead agency personnel and mining industry representatives.

The text of CCR § 3505(a)(2) reads:

"The purpose of this subdivision is to define the criteria of a "flood control facility," the clean-out of which is exempt from the requirements of the Surface Mining and Reclamation Act of 1975 under PRC 2714(a) and (b). It is intended that cleaning out of a previously engineered, constructed facility for which approved design plans exist is an activity to restore the usefulness of that flood control facility to its original design purpose. It is not the intent of this subdivision to exempt the removal of materials from natural channels.

The removal of post-construction accumulated materials from a responsible public agency approved, managed, engineered constructed facility intended for the purpose of water retention or detention, debris retention, or from a flood water conveyance, where the post extraction condition, capacity or grade of the facility or conveyance does not exceed the as-built approved design specification contained in the approved documents for the facility or conveyance, shall be exempt from the provisions of the Act."

John G. Parrish, Ph.D.
Executive Officer, SMGB

OMR Testifies At Planning Commission Hearing

A massive landslide at a flagstone quarry located in the Los Padres National Forest precipitated a Santa Barbara County Planning Commission hearing in February. The quarry, which has recently come under the jurisdiction of the county, has been operating since 1953, and still does not have a lead-agency approved reclamation plan.

The landslide buried approximately one-half mile of a blue-line creek under debris of up to 100 feet deep. Geologic mapping indicates there may be numerous historical landslides in the area. Sidecasting of mine waste material on top of an old landslide is believed to have caused the most recent slope failure, and remains a major concern because the area is so prone to landslides. County planning officials, frustrated by years of incomplete and inadequate reclamation plan submittals by the operator, recommended that the quarry be closed until it is in compliance with California's Surface Mining and Reclamation Act and the county's mining ordinance. Also recommended was that the operator be required to provide a waste disposal design that will minimize the potential for future slope failures at the mine.

OMR technical staff members Jim Pompy and Kit Custis attended the hearing at the request of the county, and have provided technical review and comment where appropriate. After seven hours of testimony, the planning commission decided to continue the hearing until April 9. In the interim, county planning officials were directed to meet with the mine operator to develop a mutually acceptable timetable for submittal of additional information required by state law and the county's mining ordinance (the most recent reclamation plan filed by the operator was also found to be deficient).

Jim Pompy
Manager, Reclamation Unit

Message From The Director

Larry Goldzband

Long before I took the job as director of the California Department of Conservation, I learned the importance of good working relationships. Now that I'm here, I see a clear opportunity for the department and local lead agencies to reach our mutual goals in support of an economically productive and environmentally safe mining industry.

As I see it, one of the keys to making the Surface Mining and Reclamation Act work is communication among the department, the lead agencies and the industry. That's why I'm excited about the department's strategic planning process begun by my predecessor, Elin Miller.

Through the strategic planning process, we've opened the department to input and feedback from all of our stakeholders. This will allow us to learn how we can better serve stakeholder needs and address areas where we may have shortcomings. Our goal is a more efficient, more effective Department of Conservation.

One aspect of SMARA where this is paramount is enforcement, where it seems to me we've taken something of a shotgun approach.

I recently signed a number of letters assessing penalties on mine operators who are out of compliance with the law. But in all honesty, I would be the happiest person who ever sat in this office if I didn't have to sign any more.

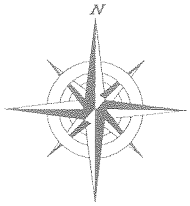
I envision development of an enforcement strategy which benefits those who work with us and follow the rules, and has the proper framework to bring those who aren't with us into compliance. As it stands, the bad actors who aren't in compliance have an unfair competitive advantage over the good actors, and I want to get rid of that advantage.

We can do this by creating clear guidelines about what is necessary to get into compliance and stay there. We will apply the law fairly and consistently. And we will assess penalties on those who do not comply, thus creating a disincentive for noncompliance.

I understand that SMARA can be a challenging law to work with for lead agencies, mine operators and the department. Nevertheless, it is imperative that California preserve its natural resources and ensure that their uses are not environmentally hazardous. I look forward to working with you to accomplish these goals.

Executive Officer's Report

As described under separate titles in this newsletter, the State Mining and Geology Board took action at its January 16 regular business meeting that will clarify both the flood control and farming exemptions. In addition to these major decisions, however, the board also adopted procedures relating to the incorporation by lead agencies of mineral resource management policies into their general plans, and adopted revisions to its *Financial Assurance Guidelines*. Changes to the *Financial Assurance Guidelines* included the addition of language clarifying the use of bonds as financial assurance mechanisms, and the inclusion of the revised cost estimation worksheet example. Copies of the *Guidelines* were mailed to all lead agencies in February, and are being provided to all SMARA workshop participants. To obtain a copy, contact the board office in Sacramento at (916) 322-1082.



John G. Parrish, Ph.D.
Executive Officer, SMGB

FYI

The Office of Mine Reclamation has targeted mid-May for mailing the 1996 Mining Operation Annual Report forms and instructions to the 1400 actively reporting surface mines in California. Any operator not receiving the report form by June 1 should contact OMR. As in the past, the State Mining and Geology Board has set July 1 as the due date for submitting the annual report to OMR.

The reporting fees will remain at last year's level.

Setting Revegetation Performance Standards

PART I: PARAMETERS

Editor's Note: The following is part one of a two-part series on development of revegetation performance standards, excerpted from "Rehabilitation of Disturbed Lands in California: A Decision-Making Guide," by Gail Newton (Department of Conservation publication in preparation).

The SMGB Regulations (Article 9) require that a reclamation plan set forth the revegetation performance standards and that these standards address cover, density and species-richness. The standards are usually derived from baseline data or from data on a reference site. Figures 1, 2 and 3 visually depict the definitions of cover, density and species-richness, with the following text providing additional information.

Cover is defined as "the vertical projection of the crown or shoot area of a species to the ground surface expressed as a percentage of the reference area." Another way to view cover is as the amount of vegetative crown one would see if hovering over the top of the site. The measurement of cover does not require that the observer be able to identify individual plant species or be able to determine individual plants, and is therefore very useful in grassland situations. Cover is usually visually estimated by experienced researchers. Inexperienced individuals should measure the amount of cover using a densimeter or tape measures, or a partitioned plot. The latter of these methods would, for instance, require the researcher to mark

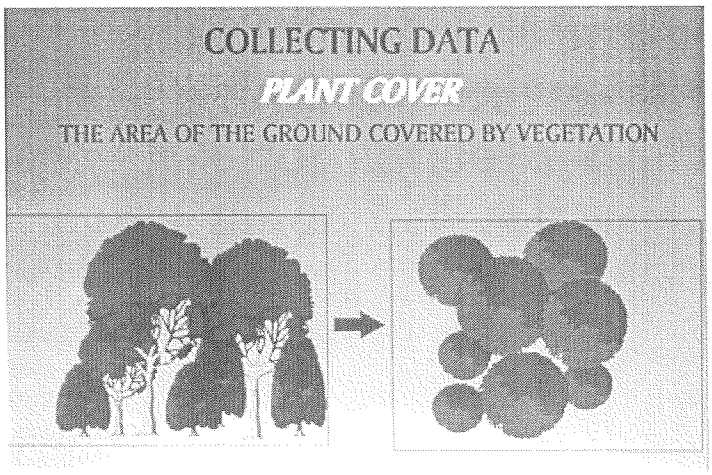


Figure 1

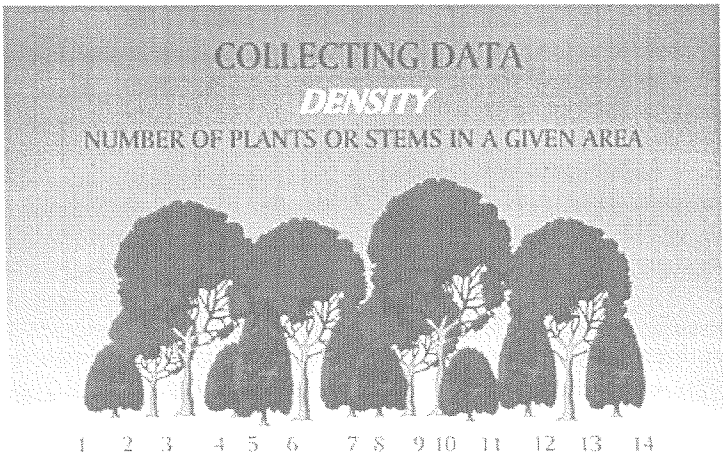


Figure 2

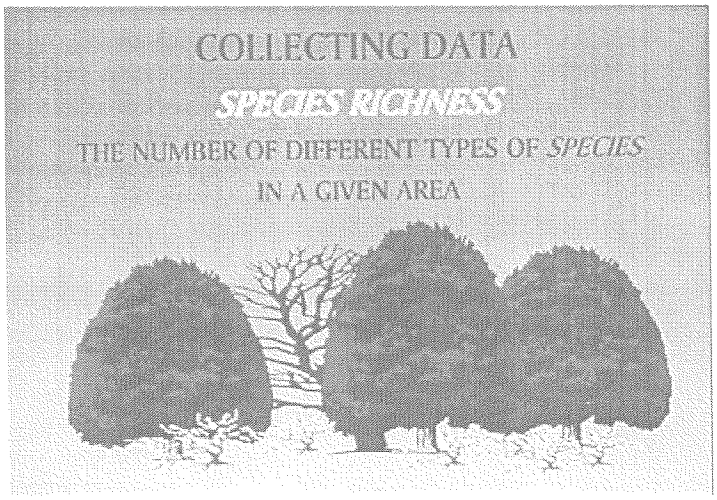


Figure 3

off the area being sampled. Using 100 square feet as an example, each shrub would be measured by laying a tape measure across the crown of the shrub (in two directions, taking the average) and determining the area of that circle (πr^2) (e.g., 10 square feet). Then the cover of that shrub would be expressed as a percentage of the 100 square foot plot, or 10 percent. Assuming six shrubs are within the plot and all shrubs cover 10 square feet, adding up the area within the plot covered by all species would result in 60 percent cover. Once a person is familiar with visual estimation of cover, this sampling can proceed very quickly.

Density is simply the number of individual plants or stems within the reference area. Since this parameter requires identification of an individual, density is best used on shrubs and trees, and can be almost impossible to use on grasslands. Once again, the researcher marks off the sample plot of 100 square feet. Next, the researcher counts the number of individuals of each species in the plot. These data will result in a density of each species and a total vegetative density of the plot.

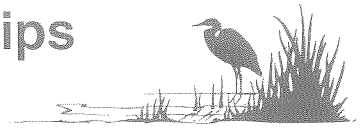
Species-richness is the number of species within the reference area. This parameter requires that the individual be able to discern species from each other. Using the same example of a 100 square foot plot, let's say there are six shrubs in the plot: two manzanita, two redbud and two buckbrush. While the density would be six, the species-richness would be three.

One caution -- density and species-richness are plot-size dependent parameters. That is, they are absolute numbers per a given plot size. As the plot size is increased, density and species-richness are also increased, though not linearly. While density may increase linearly and could therefore be converted to a ratio or percentage, species-richness does not increase linearly. Thus, the plot size used for sampling these parameters after reclamation needs to be the same as the plot size used for setting the performance standards prior to reclamation. This problem does not occur with cover since it is expressed as a percentage of the reference area.

Under many circumstances, it is most appropriate to use only perennial species for setting and reporting performance standards. Such decisions should be set forth in the reclamation plan. To appropriately report these parameters in the reclamation plan, they should be expressed as a mean (average) value with a reference as to the range of values within each parameter and a variance. This will require some simple statistical math, or statistical calculators can be used to generate these values. And don't forget to state the plot size!

Gail Newton
Env. Services Unit Manager

Reclamation Tips



Seed Collection Guidelines

The following collection guidelines are condensed and modified from Guinon (1992). These guidelines can be used for most species; however, *they are not appropriate for narrowly endemic species or rare, endangered, and threatened species.*[1]

A genetically diverse collection of locally adapted plant material will increase the likelihood of success for your revegetation project. With this principle in mind, the forest nursery profession developed seed zones for the collection of seed of commercial tree species. The development of these seed zones required decades of research on a very limited number of species. Unfortunately, this type of data doesn't exist for the remaining thousands of California native plants. Until such data become available, the following guidelines are commonly used on revegetation sites in California.

1. Collect from sites closely related ECOLOGICALLY to the planting site. Collection need not be restricted to project boundaries, but should be restricted by ecological boundaries (watershed, elevation, aspect, rainfall, soil type, etc.). Some indication of the genetic boundary of a species can be gained from the pollination strategy of the plant. The genes of a wind-pollinated species will be more broadly distributed than those of insect-pollinated species.

2. Limit inbreeding potential. Collect propagules from a large number (50-100) of widely spaced (100 meters) individuals, rather than from a few close relatives, to limit inbreeding on the revegetation site and to diversify the gene pool.

Continued on page 6

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[1] Please see the original publication by Guinon for a more thorough treatment of this topic. Guinon, M. 1992. Promoting gene conservation through seed and plant procurement. In Proceedings, Western Forest Nursery Association, Fallen Leaf Lake, CA, September 14-18, 1992.

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Coming in the next issue of the *SMARA Update*... "Status of Mine Operation Closure Orders"

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